

BRUHAT BENGALURU MAHANAGARA PALIKE
BYATARAYANAPURA

NAME OF WORK: Improvements to Roads and Drains at Hegadenagara Eastern Side Roads in Ward no: 06 Bytarayanapura
Sub Division.

Job no:-						Est .Cost Rs.		200.00	Lakhs
Sl No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
1	Removing and resetting of footpath slab								
	For Covering Slabs	Sqm							
	Ex service man Layout, Main Road (W0074)								
	RHS		1	304.80	0.90		274.32		
	LHS		1	304.80	0.90		274.32		
	Shabri nagar main road (W0084)								
	RHS		1	67.20	0.90		60.48		
	From Ganesh Temple Road		1	55.40	0.90		49.86		
	Towards Dead End		1	124.10	0.90		111.69		
	LHS								
	From Ganesh Temple Road		1	37.00	0.90		33.30		
	Towards Dead End		1	98.40	0.90		88.56		
	5th Cross Road (W0175)								
	RHS		1	45.80	0.90		41.22		
	LHS		1	45.80	0.90		41.22		
	6th Cross Road (W0197)								
	RHS		1	45.50	0.90		40.95		
	LHS		1	45.50	0.90		40.95		
	7th Cross Road (W0199)								
	RHS		1	45.70	0.90		41.13		
	LHS		1	45.70	0.90		41.13		
	8th Cross Road (W0084)								
	RHS		1	47.50	0.90		42.75		
	LHS		1	47.50	0.90		42.75		
							1224.63		
	5% Missing Slabs						61.23		
							1163.00	246.70	286912.00
2	Earth work excavation by manual means for drains,canals and similar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenances required to complete the work. Page No. 7/ Item No. 1.4.1/ PWD SR 2021-22 (Vol-I)								
	Drain Desilting	Cum							
	Ex service man Layout, Main Road (W0074)								
	RHS		1	304.80	0.60	0.45	82.30		
	LHS		1	304.80	0.60	0.45	82.30		
	Shabri nagar main road (W0084)								
	RHS		1	67.20	0.60	0.45	18.14		
	From Ganesh Temple Road		1	55.40	0.60	0.45	14.96		
	Towards Dead End		1	124.10	0.60	0.40	29.78		
	LHS								
	From Ganesh Temple Road		1	31.40	0.60	0.50	9.42		
			1	5.60	0.60	0.55	1.85		
	Towards Dead End		1	20.00	0.60	0.50	6.00		
			1	30.00	0.60	0.55	9.90		
			1	99.80	0.60	0.60	35.93		
	5th Cross Road (W0175)								
	RHS		1	45.80	0.60	0.50	13.74		
	LHS		1	45.80	0.60	0.55	15.11		
	6th Cross Road (W0197)								

Job no:-							Est .Cost Rs.		200.00	Lakhs
SI No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount	
	RHS		1	45.50	0.60	0.50	13.65			
	LHS		1	15.00	0.60	0.35	3.15			
			1	30.50	0.60	0.40	7.32			
	7th Cross Road (W0199)									
	RHS		1	30.00	0.60	0.40	7.20			
			1	15.70	0.60	0.60	5.65			
	LHS		1	45.70	0.60	0.60	16.45			
	8th Cross Road (W0084)									
	RHS		1	47.50	0.60	0.60	17.10			
	LHS		1	47.50	0.60	0.60	17.10			
	Shabri Nagar 1st main Cross road 2A (W0096)									
	RHS		1	48.00	0.60	0.60	17.28			
	LHS		1	48.00	0.60	0.60	17.28			
	Shabri Nagar 1st main Cross road 2B (W0094)									
	RHS		1	36.30	0.60	0.60	13.07			
	LHS		1	36.30	0.60	0.60	13.07			
	Shabri Nagar 1st main Cross road 2C (W0092)									
	RHS		1	40.50	0.60	0.60	14.58			
	LHS		1	40.50	0.60	0.60	14.58			
	New RCC Drain Work	Cum								
	New Shanthi Nagar Main Rad									
	1st Cross Road (W0135)		1	65.00	0.90	1.05	61.43			
	2nd Cross Road (W0143)		1	63.00	0.90	1.05	59.54			
	3rd Cross Road (W0147)		1	59.00	0.90	1.05	55.76			
	4th Cross Road (W0151)		1	59.00	0.90	1.05	55.76			
	5th Cross Road (W0163)		1	55.30	0.90	1.05	52.26			
	New Culverts									
	1st Cross Road (W0135)		1	5.20	1.50	1.20	9.36			
	2nd Cross Road (W0143)		1	5.40	1.50	1.20	9.72			
	3rd Cross Road (W0147)		1	4.00	1.50	1.20	7.20			
	4th Cross Road (W0151)		1	4.20	1.50	1.20	7.56			
	5th Cross Road (W0163)		1	4.80	1.50	1.20	8.64			
							824.12	351.05	289306.00	

3 Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately (Page No.15 & Item No.2.1.2)PWD SR 2021-22 (Vol-III)

PCC 1:4:8	Cum									
New Shanthi Nagar Main Rad										
1st Cross Road (W0135)										
1st Cross Road (W0135)		1	65.00	0.90	0.15	8.78				
2nd Cross Road (W0143)		1	63.00	0.90	0.15	8.51				
3rd Cross Road (W0147)		1	59.00	0.90	0.15	7.97				
4th Cross Road (W0151)		1	59.00	0.90	0.15	7.97				
5th Cross Road (W0163)		1	55.30	0.90	0.15	7.47				
New Culverts										
1st Cross Road (W0135)		1	5.20	1.50	0.15	1.17				
2nd Cross Road (W0143)		1	5.40	1.50	0.15	1.22				
3rd Cross Road (W0147)		1	4.00	1.50	0.15	0.90				
4th Cross Road (W0151)		1	4.20	1.50	0.15	0.95				
5th Cross Road (W0163)		1	4.80	1.50	0.15	1.08				

Job no:-							Est .Cost Rs.	200.00	Lakhs
Sl No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
							45.99	6413.65	294934.00
4	Providing and laying in position Reinforced cement concrete for all Foundation works. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticizers laid in finished layers, well compacted using needle vibrators, including all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork to be paid separately) (Page 15/2.2.1.1) PWD SR 2021-22 (Vol-I)								
	RCC M20	Cum							
	Drain Raft								
	New RCC Drain Work								
	New Shanthi Nagar Main Rad								
	1st Cross Road (W0135)		1	65.00	0.75	0.15	7.31		
	2nd Cross Road (W0143)		1	63.00	0.75	0.15	7.09		
	3rd Cross Road (W0147)		1	59.00	0.75	0.15	6.64		
	4th Cross Road (W0151)		1	59.00	0.75	0.15	6.64		
	5th Cross Road (W0163)		1	55.30	0.75	0.15	6.22		
	New Culverts								
	1st Cross Road (W0135)		1	5.20	1.20	0.15	0.94		
	2nd Cross Road (W0143)		1	5.40	1.20	0.15	0.97		
	3rd Cross Road (W0147)		1	4.00	1.20	0.15	0.72		
	4th Cross Road (W0151)		1	4.20	1.20	0.15	0.76		
	5th Cross Road (W0163)		1	4.80	1.20	0.15	0.86		
	Drain wall								
	New RCC Drain Work								
	New Shanthi Nagar Main Rad								
	1st Cross Road (W0135)		2	65.00	0.15	0.60	11.70		
	2nd Cross Road (W0143)		2	63.00	0.15	0.60	11.34		
	3rd Cross Road (W0147)		2	59.00	0.15	0.60	10.62		
	4th Cross Road (W0151)		2	59.00	0.15	0.60	10.62		
	5th Cross Road (W0163)		2	55.30	0.15	0.60	9.95		
	New Culverts								
	1st Cross Road (W0135)		2	5.20	0.25	0.75	1.95		
	2nd Cross Road (W0143)		2	5.40	0.25	0.75	2.03		
	3rd Cross Road (W0147)		2	4.00	0.25	0.75	1.50		
	4th Cross Road (W0151)		2	4.20	0.25	0.75	1.58		
	5th Cross Road (W0163)		2	4.80	0.25	0.75	1.80		
	Total QTY						101.23		
							101.23	7236.31	732518.00

5 Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications.(V-III, I.No 13.1 Page No 99, PWD SR 2021-22)

TMT Steel FE500	Ton						
Description	Dia In MM	No	Length in M	8 MM	10 MM	12 MM	16 MM
SPACING - 0.15 M							
FOR DRAINS							
New Shanthi Nagar Main Road							
1st Cross Road (W0135)							
10mm Main	10Ø	861.00	2.10		1808.10		
8mm Dis	8Ø	29.00	64.50	1870.50			
2nd Cross Road (W0143)							
10mm Main	10Ø	835.00	2.10		1753.50		
8mm Dis	8Ø	29.00	62.50	1812.50			
3rd Cross Road (W0147)							
10mm Main	10Ø	787.00	2.10		1652.70		
8mm Dis	8Ø	29.00	59.00	1711.00			

SI No	Job no:-					Est .Cost Rs.		200.00	Lakhs
	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
	4th Cross Road (W0151)								
	10mm Main	100	761.00	2.10		1598.10			
	8mm Dis	80	29.00	57.00	1653.00				
	5th Cross Road (W0163)								
	10mm Main	100	739.00	2.10		1551.90			
	8mm Dis	80	29.00	55.30	1603.70				
	CULVERTS								
	SPACING - 0.15 M								
	1st Cross Road (W0135)								
	12mm Main	120	71.00	5.00			355.00		
	10mm Dis	100	67.00	5.20		348.40			
	2nd Cross Road (W0143)								
	12mm Main	120	73.00	5.00			365.00		
	10mm Dis	100	67.00	5.40		361.80			
	3rd Cross Road (W0147)								
	12mm Main	120	55.00	5.00			275.00		
	10mm Dis	100	67.00	4.00		268.00			
	4th Cross Road (W0151)								
	12mm Main	120	57.00	5.00			285.00		
	10mm Dis	100	67.00	4.20		281.40			
	5th Cross Road (W0163)								
	12mm Main	120	65.00	5.00			325.00		
	10mm Dis	100	67.00	4.80		321.60			
					8650.70	9945.50	1605.00		
	CALCULATIONS								
	Calculations	80	#####	0.395	3417.03				
		100	#####	0.617	6136.37				
		120	#####	0.888	1425.24				
		160	0.00	1.580	0.00				
				Total	10978.64	Kg/m			
						Total	10.98	106436.07	1168523.00
6	Providing precast slab of 100 mm thick including cost of all materials, labour, curing,transportation,loading ,unloading,etc.,complete as per the direction of engineer in charge Data Rate								
	Covering Slab for New RCC Drains	Sqm							
	New Shanthi Nagar Main Rad								
	1st Cross Road (W0135)		1	65.00	0.75		48.75		
	2nd Cross Road (W0143)		1	63.00	0.75		47.25		
	3rd Cross Road (W0147)		1	59.00	0.75		44.25		
	4th Cross Road (W0151)		1	59.00	0.75		44.25		
	5th Cross Road (W0163)		1	55.30	0.75		41.48		
	Missing Slabs		1	108.20	0.90		97.38		
							323.36	2175.19	703358.00
7	Providing and fixing RCC precast cover slab of 230mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	Covering Slab for Culverts	Sqm							
	1st Cross Road (W0135)		1	5.20	1.20		6.24		
	2nd Cross Road (W0143)		1	5.40	1.20		6.48		
	3rd Cross Road (W0147)		1	4.00	1.20		4.80		
	4th Cross Road (W0151)		1	4.20	1.20		5.04		

Job no:-						Est .Cost Rs.		200.00	Lakhs
SI No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
	5th Cross Road (W0163)		1	4.80	1.20		5.76		
							28.32	5287.84	149751.00
8	Scarifying the existing bituminous road surface to a depth of 50 mm and disposal of scarified material by Mechanical Means using Hydraulic excavator with in all lifts and lead. Page No. 15/ Item No. 3.5/ PWD SR 2021-22 (Vol-III).								
	Scarifying the existing bituminous road surface	Sqm							
	Ex service man Layout, Main Road (W0074)		1	304.80	6.72		2046.73		
	Shabarinagara, Main Road (W0084)		1	258.00	6.32		1631.31		
	5th Cross Road Subramanya Temple		1	85.40	6.72		573.89		
							4251.93	4.62	19643.00
9	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work ((V-I, P.No-8, I No-1.12 of PWD SR 2021-22)								
	Earth work excavation (By Manual Means)	Cum							
	Ex service man Layout, Main Road (W0074)0		1	304.80	6.72	0.30	614.02		
	Shabarinagara, Main Road (W0084)		1	258.00	6.32	0.30	489.39		
	Shabarinagara, Cross Road 8 (W0084)		1	47.50	5.33	0.30	75.95		
	Shabarinagara, Cross Road 7 (W0199)		1	45.70	5.18	0.30	71.02		
	Shabarinagara, Cross Road 6 (W0197)		1	45.50	5.07	0.30	69.21		
	Shabarinagara, Cross Road 5 (W0091)		1	45.80	5.17	0.30	71.04		
	Shabri Nagar 1st main Cross road 2A (W0096)		1	50.00	6.10	0.30	91.50		
	Shabri Nagar 2nd main Cross road 2B (W0094)		1	50.00	4.65	0.30	69.75		
	Shabri Nagar 3rd main Cross road 2C (W0092)		1	47.00	5.18	0.30	73.04		
	5th Cross Road Subramanya Temple		1	85.40	6.72	0.30	172.17		
	New CC Road								
	New Shanti Nagar Cross Road 1 (W0135)		1	65.00	4.84	0.30	94.38		
	New Shanti Nagar Cross Road 2 (W0143)		1	63.00	5.25	0.30	99.23		
	New Shanti Nagar Cross Road 3 (W0147)		1	59.00	3.73	0.30	66.02		
	New Shanti Nagar Cross Road 4 (W0151)		1	59.00	3.61	0.30	63.90		
	New Shanti Nagar Cross Road 5 (W0163)		1	55.30	4.86	0.30	80.63		
							2201.23	75.06	165224.00
10	Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. Page No. 24/ Item No. 4.27/ PWD SR 2021-22 (Vol-III).								
	Wet Mix	Cum							
	Ex service man Layout, Main Road (W0074)0		1	304.80	6.72	0.25	511.68		

Job no:-			Est .Cost Rs.					200.00	Lakhs
SI No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
	Shabarinagara, Main Road (W0084)		1	258.00	6.32	0.25	407.83		
	Shabarinagara, Cross Road 8 (W0084)		1	47.50	5.33	0.25	63.29		
	Shabarinagara, Cross Road 7 (W0199)		1	45.70	5.18	0.25	59.18		
	Shabarinagara, Cross Road 6 (W0197)		1	45.50	5.07	0.25	57.67		
	Shabarinagara, Cross Road 5 (W0091)		1	45.80	5.17	0.23	54.46		
	Shabri Nagar 1st main Cross road 2A (W0096)		1	50.00	6.10	0.23	70.15		
	Shabri Nagar 2nd main Cross road 2B (W0094)		1	50.00	4.65	0.25	58.13		
	Shabri Nagar 3rd main Cross road 2C (W0092)		1	47.00	5.18	0.25	60.87		
	5th Cross Road Subramanya Temple		1	85.40	6.72	0.25	143.47		
	For UGD Cutting								
	Ex service man Layout, Main Road (W0074)		1	304.80	1.10	0.30	100.58		
	Ex service man Layout, Main Road For Water Connection Line (W0074)		1	304.80	0.90	0.30	82.30		
							1587.31	2764.54	4388191.00
11	Providing and applying primer coat with SS1 grade Bitumen Emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.90 kg per m2 using mechanical means. (P.No.29 It.No.5.1, PWD SR 2021-22 (Vol-III))								
	Prime coat	Sqm							
	Ex service man Layout, Main Road (W0074)		1	304.80	6.72		2046.73		
	Shabarinagara, Main Road (W0084)		1	258.00	6.32		1631.31		
	5th Cross (W0091)		1	85.40	6.72		573.89		
							4251.93	48.50	206218.00
12	Providing and applying tack coat with RS1 Bituminous Emulsion using emulsion pressure distributor at the rate of 0.20 kg/m2 on the prepared bituminous surface cleaned with mechanical broom (P.No.29 It.No.5.3, PWD SR 2021-22 (Vol-III))								
	Tack coat	Sqm							
	Ex service man Layout, Main Road (W0074)0		1	304.80	6.72		2046.73		
	Shabarinagara, Main Road (W0084)		1	258.00	6.32		1631.31		
	Shabarinagara, Cross Road 8 (W0084)		1	47.50	5.33		253.18		
	Shabarinagara, Cross Road 7 (W0199)		1	45.70	5.18		236.73		
	Shabarinagara, Cross Road 6 (W0197)		1	45.50	5.07		230.69		
	Shabarinagara, Cross Road 5 (W0091)		1	45.80	5.17		236.79		
	Shabri Nagar 1st main Cross road 2A (W0096)		1	50.00	6.10		305.00		
	Shabri Nagar 2nd main Cross road 2B (W0094)		1	50.00	4.65		232.50		
	Shabri Nagar 3rd main Cross road 2C (W0092)		1	47.00	5.18		243.46		
	5th Cross Road Subramanya Temple		1	85.40	6.72		573.89		

Job no:-						Est .Cost Rs.		200.00	Lakhs
Sl No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
							5990.26	13.86	83025.00
13	Providing and laying Dense Graded Bituminous Macadam with 40/60 TPH capacity HMP using crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 4.5 per cent by weight of total mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRTH specification clause No. 505 complete in all respects.(Grade-II) (Pg:33, It.No-5.12 C PWD SR:2021-22 (Vol-III))								
	Dense Graded Bituminous Macadam (DBM)	Cum							
	Ex service man Layout, Main Road (W0074)		1	304.80	6.72	0.05	102.34		
	Shabarinagara, Main Road (W0084)		1	258.00	6.32	0.05	81.57		
	5th Cross (W0091)		1	85.40	6.72	0.05	28.69		
							212.60	10553.53	2243642.00
14	Providing and laying Bituminous Concrete with 40/60 TPH capacity hot mix plant using Crushed aggregates of specified grading, premixed with bituminous binder VG-30, @ 5.4 per cent of mix and filler, transporting the hot mix to work site, laying with mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respect (Pg:36, It.No-5.16 C PWD SR:2021-22 (Vol-III))								
	Bituminous Concrete (BC)	Cum							
	Ex service man Layout, Main Road (W0074)0		1	304.80	6.72	0.04	81.87		
	Shabarinagara, Main Road (W0084)		1	258.00	6.32	0.04	65.25		
	Shabarinagara, Cross Road 8 (W0084)		1	47.50	5.33	0.04	10.13		
	Shabarinagara, Cross Road 7 (W0199)		1	45.70	5.18	0.04	9.47		
	Shabarinagara, Cross Road 6 (W0197)		1	45.50	5.07	0.04	9.23		
	Shabarinagara, Cross Road 5 (W0091)		1	45.80	5.17	0.04	9.47		
	Shabri Nagar 1st main Cross road 2A (W0096)		1	50.00	6.10	0.04	12.20		
	Shabri Nagar 2nd main Cross road 2B (W0094)		1	50.00	4.65	0.04	9.30		
	Shabri Nagar 3rd main Cross road 2C (W0092)		1	47.00	5.18	0.04	9.74		
	5th Cross Road Subramanya Temple		1	85.40	6.72	0.04	22.96		
							239.61	12253.37	2936034.00
15	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250 g/ m2 area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35:2015.The finished surface to be level, uniform and free from streaks and holes. Page No. 57/ Item No. 8.15 PWD SR 2021-22 (Vol-III).								
	Road Marking	Sqm							
	Ex service man Layout, Main Road (W0074)0		2	304.80	0.10		60.96		
	Shabarinagara, Main Road (W0084)		2	258.00	0.10		51.60		
	Shabarinagara, Cross Road 8 (W0084)		2	47.50	0.10		9.50		
	Shabarinagara, Cross Road 7 (W0199)		2	45.70	0.10		9.14		
	Shabarinagara, Cross Road 6 (W0197)		2	45.50	0.10		9.10		
	Shabarinagara, Cross Road 5 (W0091)		2	45.80	0.10		9.16		

[illegible]

	Job no:-					Est .Cost Rs.		200.00	Lakhs
Sl No	Description of Items	Unit	No	L (M)	B (M)	D (M)	Qty	Rate	Amount
	GST 12.0%								2099888.16
	For DPR and PMC Charges 2.0%								400000.00
	Sub Total								19998956.16
	Miscellaneous								1043.84
	Total								20000000.00

CERTIFICATE

- 1 The Work spot has been inspected and the work found to be necessary
- 2 The Estimate is prepared as per the PWD SR 2021-22 (Vol-I and Vol-III)
- 3 The Provision made in estimate are adequate and essential
- 4 This area comes under BBMP limits.


Assistant Engineer
Ward No:06
BBMP


Asst Executive Engineer
Byatarayan Sub-Division
BBMP


Executive Engineer
Byatarayanapura Division
BBMP